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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,659	08/05/2003	Joseph Allan Patchett	4919	6351

48226 7590 08/22/2006

BASF CATALYSTS LLC  
101 WOOD AVENUE  
ISELIN, NJ 08830

EXAMINER
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JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,659

Applicant(s)

PATCHETT ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen et al. US 6,312,650 in view of Speronello et al. US 5,516,497.

Regarding claim 1, Frederiksen '650 discloses a system for purification of exhaust gas including NOx (abstract) comprising purification catalyst monoliths placed one after the other including SCR and oxidation catalyst (see abstract, Figures, and column 9, lines 48-60), ammonia injection (abstract), wherein the monolith is a wall-flow monolith comprising axial channels constituted by a plurality of coextending passages separated by common passage walls, the passages being closed at the inlet and outlet ends, alternately (see column 2, lines 30-64). Frederiksen further discloses porous walls and porosity (abstract), which would obviously, to one of ordinary skill,

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suggest an optimum porosity including about 50-75% arrived at through routine experimentation. It also would have been within the purview of an ordinarily skilled artisan to use the claimed order of oxidation, injection and SCR because Frederiksen discloses the order will only "typically" be A followed by B and C (column 9, lines 59-60), which would obviously, to one of ordinary skill, suggest other orders including B followed by A and C.

Frederiksen fails to disclose at least 1.3 g/in<sup>3</sup> SCR catalyst.

Speronello '497 discloses 1.6 g/in<sup>3</sup> copper SCR catalyst (see abstract and Example 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 1.6 g/in<sup>3</sup> copper SCR catalyst of Speronello in the oxidation and ammonia reduction, NOx purification system of Frederiksen because Speronello discloses they catalyst in a system for catalytic reduction of nitrogen oxides with ammonia wherein the selectivity of the zeolite catalyst can be tailored to favor either the SCR or the oxidation of ammonia (see column 5, lines 34-40).

Regarding claim 2, Frederiksen further discloses porous walls and porosity (abstract), which would obviously, to one of

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ordinary skill, suggest an optimum porosity including about 50-75% arrived at through routine experimentation.

Regarding claims 3-4, Speronello '497 discloses copper and zeolite (see abstract and Example 1).

Regarding claim 5, Speronello '497 discloses a silica to alumina ratio of 10 or more (abstract).

Regarding claim 6, Speronello '497 discloses beta zeolite (see Examples 1 and 3-4).

Regarding claim 7, Speronello '497 discloses 1.6 g/in<sup>3</sup> copper SCR catalyst (see abstract and Example 1).

Regarding claims 8-9, Speronello '497 discloses a known first stage oxidation catalyst comprising zeolites, platinum, or palladium (see column 2, lines 28-50).

Regarding claim 10, Frederiksen discloses diesel engine exhaust treatment (see column 5, lines 1-7).

Regarding claim 11, Speronello '497 discloses honeycomb monolith support (Examples) as does Frederiksen (see column 2, lines 55-64).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not

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identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,826,906. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time the invention was made to claim an oxidation catalyst and ammonia injector because the '906 patent claims and defines a catalyzed soot filter and a valve with nitrogen reductant with means for controlling said valve, which, to one of ordinary skill, at least suggest obvious equivalent reductants including ammonia with a reasonable expectation of achieving a favorable result.

5. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/925,018. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an oxidation catalyst because the '018 application claims an ammonia destruction catalyst comprising a platinum group metal on a refractory metal oxide.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of copending Application No. 10/858,656. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '656 application claims platinum group components in an amount of 0.1-200, 0.1-5, and 0.1-0.5 g/ft<sup>3</sup> in claims 26-29 and it would have been obvious to one of ordinary skill in the art to inject ammonia because the '656 patent claims a first diesel engine exhaust inlet, which would obviously, to one of ordinary

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skill, suggest an ammonia injection to reduce the claimed diesel engine exhaust.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bailey et al. US 6,989,045 discloses a system for filtering and reducing particulate and NOx emissions comprising a porous, honeycomb wall-flow monolith and diesel oxidation catalyst (see abstract, column 1, and detailed description).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

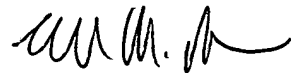
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be



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obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ